

Notepad

Feb 1 - Feb 22, 1938

W. J. Morse

U. S. Dept. of Agr.

Japan

Notebook

W. J. Morse

U. S. Dept. of Agr.

Washington, D. C.

Agricultural Notes

Japan

Feb. 1 - Feb. 1931

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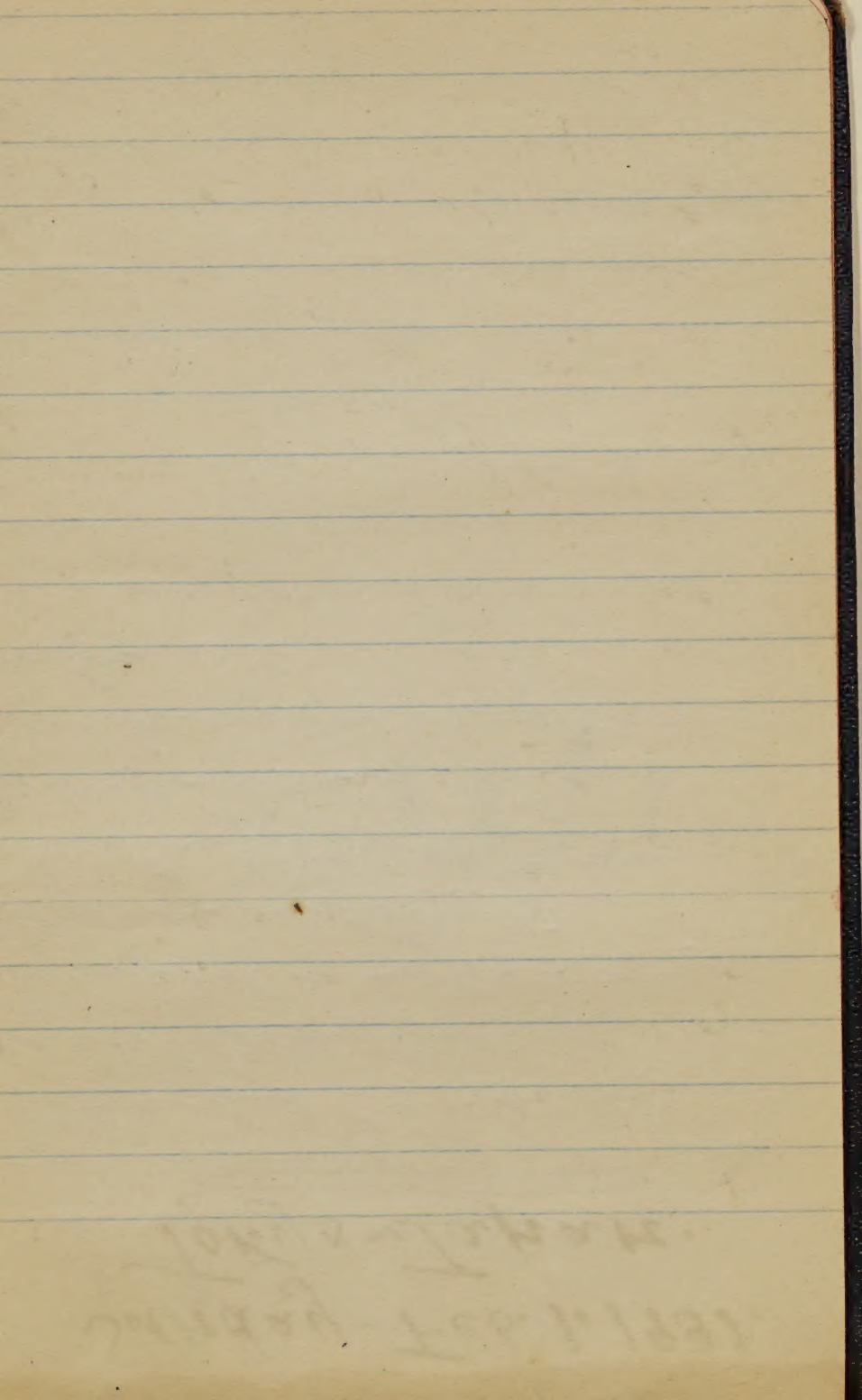
Saturday - Feb. 1. 1931.
Tokyo - Japan.

Cold and raining
nearly all day.

Worked on January
expense account.

Wrote official corres-
pondence.

Worked on my train
notes.



Monday = Feb. 2, 1931.

Tokyo = Japan.

Mild and clear. In the morning went to see Dr. Tarao at the Imperial Exp. Sta. at Nishizahara but found that he came down with the influenza Sat. We then visited several stores in two different sections looking up soy bean products. We found an abundance of roasted puffed soy-beans used on bean-scattering day, Feb. 4. The beans are mostly done up in paper bags. At one store we found the beans in small wooden boxes on the

sides of which were
stamped devils. On
the box with the beans
was a celluloid figure
of Ukami-san - the
good-luck goddess.
Two good-luck charms,
and two small brass
images of Buddha.
On the stones were
placards showing the
scattering of beans
and the running
away of the devils. On
street corners were
placards advertising
bean scattering
ceremonies at shrines
and temples at Nikko
and nearby places.
We also noticed

placards announcing
bean scattering ceremonies
at many shrines and
temples in Tokyo. We
have seen more
announcements of the
bean ceremonies this
season than last.

After lunch, we
went to the Saitama
Prefecture Agr. Expt. Sta.
at Urawa where we
met Prof. Hakamada,
the director. He advised
that he had received
the collection of sweet
and white potatoes
which he requested
Dorsett & Morse to secure
for him last winter.
The Expt. Sta. is to
be removed to

another place in the
prefecture during
the next three years.

With reference to
the green vegetable soy-
bean work, this has
been transferred to
the branch station
at Koshigawa. The
beans are started in
hot beds about the
first of March both
at the station and
by the farmers in the
Shitama prefecture.
When warm weather
sets in, the plants
are transplanted to
fields.

Soy beans are not
used very extensively

in the Saitama pre-
fecture for green
manure. The station
is trying out several
varieties of soy beans
for green manure
especially the green
manure varieties
from southern pre-
fectures and Kyushu
Island. This varieties
however, have been
found too late, when
soy beans are used
for green manure, the
seed is planted between
the wheat and barley
rows when the grain
plants are just heading
about May 1. The
plants (soy bean) are
then turned under

about two weeks
after grain harvest
about the middle of
June and then the
rice is planted.

Genge clover is the
crop most generally
used throughout
the prefecture for
green manure. When
the water is drawn
off the rice paddies
in September, genge
clover is scattered
between the rows.
About rice harvest time
the young seedlings
have appeared. The
land is drained
as thoroughly as
possible in order

to make the seedlings
grow well. When the
plants come into
full bloom during
the forepart & the
middle of May they
are plowed under
entirely or cut for
forage. When cut for
forage, generally the
plants are cut a
little high, allowing
a fair growth to be
turned under. With
rather a good growth
the plants are some-
times cut and
scattered over the
paddy.

Dr. Hakanada was
asked concerning the
plants used for

sprouts. He advised that soy beans, mung beans, a species of Polygonum, radish and perilla were used. These sprouts are made in sand beds or small flats at the farmers' homes. Soy bean & mung bean sprouts are used principally in salads and also in making ankizuki. The sprouts of radish, perilla and Polygonum are used as garnishes for many dishes and also in clear soups.

Mung bean and soy bean sprouts

are now very extensively used by the Japanese. The sprouts of the other plants are quite extensively used.

We received today three bottles of Soyament from the Japanese Fertilizer Co. We also received some photos and a publication from Dr. Keiziro Aso, of the bacteriology Dept. of the Tokyo Imperial University, regarding the use of Gunge clover as a green manure crop in Japan.

It is stated that Japan's principal

green manure crops
are represented by
george clover (*Astragalus*
sinicus) and the
soybeans. The latter
is cultivated as a
summer crop in the
uplands while the
former is grown as
a winter-spring crop
in the same fields
where rice is grown
in the summer. The
area of cultivation
for george occupies
about 65% of the
total area for all
green manure crops.

George clover (*Astragalus*
sinicus) known also

as Renge-so or
Shi-un-ei is a
biennial herbaceous
legume which is
supposed to have
originated in south-
eastern Asia and to
have been introduced
into Japan in ancient
times from China.

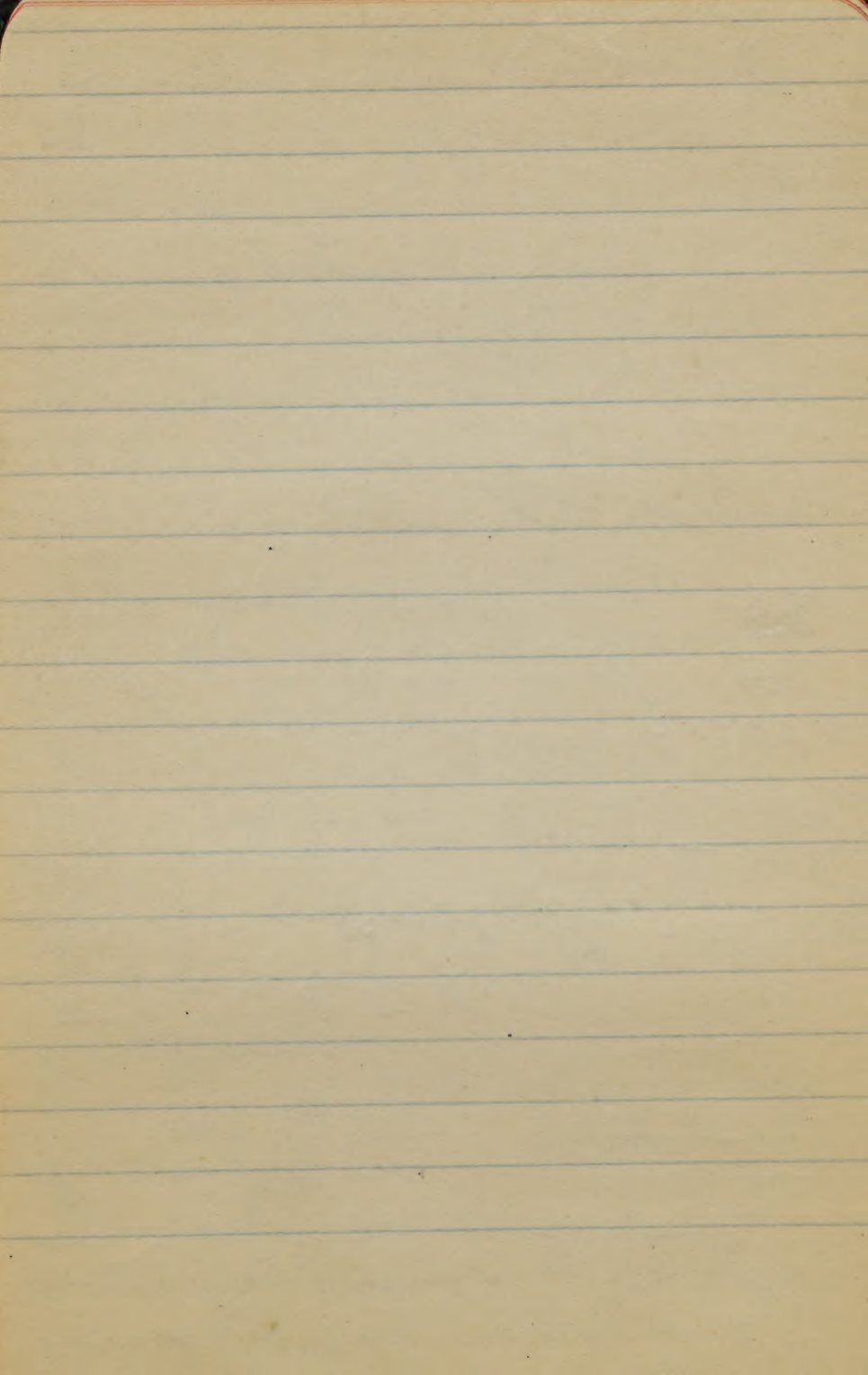
The amount of the
green harvest of genge
per acre is about
75-150 tons and some-
times over. The nitrogen
content in genge is
about 0.48% and
about 2.25% in the
air-dried hay.

According to the
investigations of

Dr. Asso. The nodule bacteria of gerge clover are somewhat smaller in size than those of peas, soybeans, and other legumes. The optimum P.H. value of pure culture medium for the growth of the bacteria of gerge is between 6.5-7.5, the limiting value being 4.7. And the course of growth they also produce some acids which are of a higher acidity than those produced by other kinds of nodule bacteria.

On the evening
worked on expense
account, and wrote
up my train data
from some railway
publications that
Mr. Sneyd had
translated.

Left Lura Harlow Sta	- 1.30 P.M.
Ar. Wana.	- 2.30 P.M.
Left. "	- 5.20 P.M.
Ar. Darabusho	- 6.20 P.M.
Postage	40
Boxes Marie-Maki says -	98



Tuesday - Feb. 3, 1931.
Tokyo = Japan.

Cool and cloudy. Worked
on expense account.

Suyetake ————— ¥50.

Looked up soybean
products and found
three which we had
not had before.

Visited Shingana
Section and found
that at Railway Office
that several large
shrines and temples
in and near Tokyo
are to have rather
extensive bean
scattering ceremonies
Tomorrow, From
the railway and
so. railway, Offices

we received some
excellent posters
with reference to bean
scattering at various
large temples and
shrines.

Parcel # 243 was
packed with seed
products and
publications for
sending by diplomatic
parcel.

1947-1948
1949-1950

Wednesday - Feb. 4, 1931.

Tokyo = Takaki.

Mame-taki = bean scattering day.

Cloudy and cool with slight rain towards evening.

We called on Dr. Ryoji Chazumi, Chief of The Animal Husbandry Department of the Tokyo Imperial Agr. College. Dr. Chazumi is held the best Japanese authority on forage and feeding resources of Japan. During the post summer he visited the U.S. Dept. of Agr. and several experiment stations

in the U.S. interesting
animal industry
problems especially
dairy and beef
cattle.

Soybean seed is
used in many
sections by farmers
for feeding horses
and cattle. The
beans are always
soaked first and
about 1 pound per
head is fed per
day. Some experiments
have been made
comparing soaked
beans and cooked
beans but the cooked
beans gave no better
results than the

soaked beans. On
the feeding of soybean
oil cake as high as
20 per cent can be fed
with safety in the
mixed feeds not usually
for hogs, cattle and
poultry 5-10 per cent
of soybean oil meal
is included in the
mixed feed.

Dr. Nagamori stated
that the present forage
resources will be
sufficient for several
years to take care of
increase in beef and
dairy cattle in Japan.
Soybean hay is not
used as the farmers
gather sufficient
rich hay and Kudzu
hay.

No experiments have been made comparing soybeans with soybean oil cake in hog feeding for soft stools. Dr. Chazumi stated that soybeans are never fed to hogs by the farmers.

We were given a publication showing the productions of grains in Japan that can be used for feed and the per cent of each that is used for animal feed.

About 5 P.M. we went to the Zogogi Temple.

then Shiba Park where
the beam scattering
was to be performed
on a large scale. Six
of Tokyo's famous
wrestlers were to
take part in the
event.

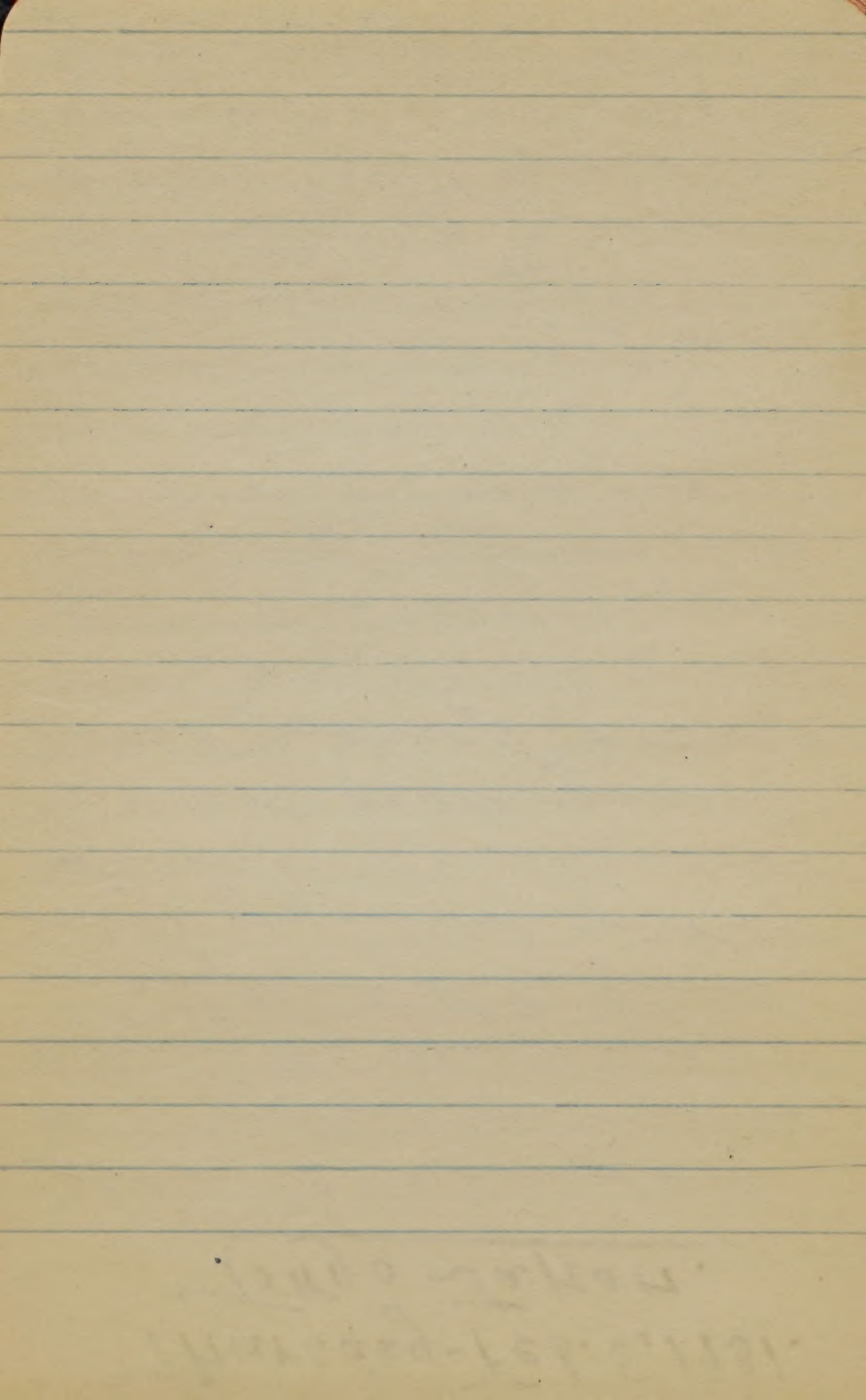
During the first
part of the ceremony,
there was more or less
music and chanting
by a large number
of priests, then followed
the reading of the
Buddha bible. Following
this the wrestlers with
large boxes of raybuns
and priests and others
went around in a pro-
cession about the
temple. As they

marched along
between the rows of
people they gave out
handfuls of beans.
and when they
reached the front
door every body began
to scatter beans
and yell. Beans were
thrown everywhere
and over every body.
about 10-12 bushels
of beans were used
during the ceremony.

Thursday-Feb. 5, 1931.
Tokyo - Japan.

Cold and raining all day. Worked in evening during the day and on my bean data from some Japanese publications.

Packed for shipment
Parcel package ^{no} 243.

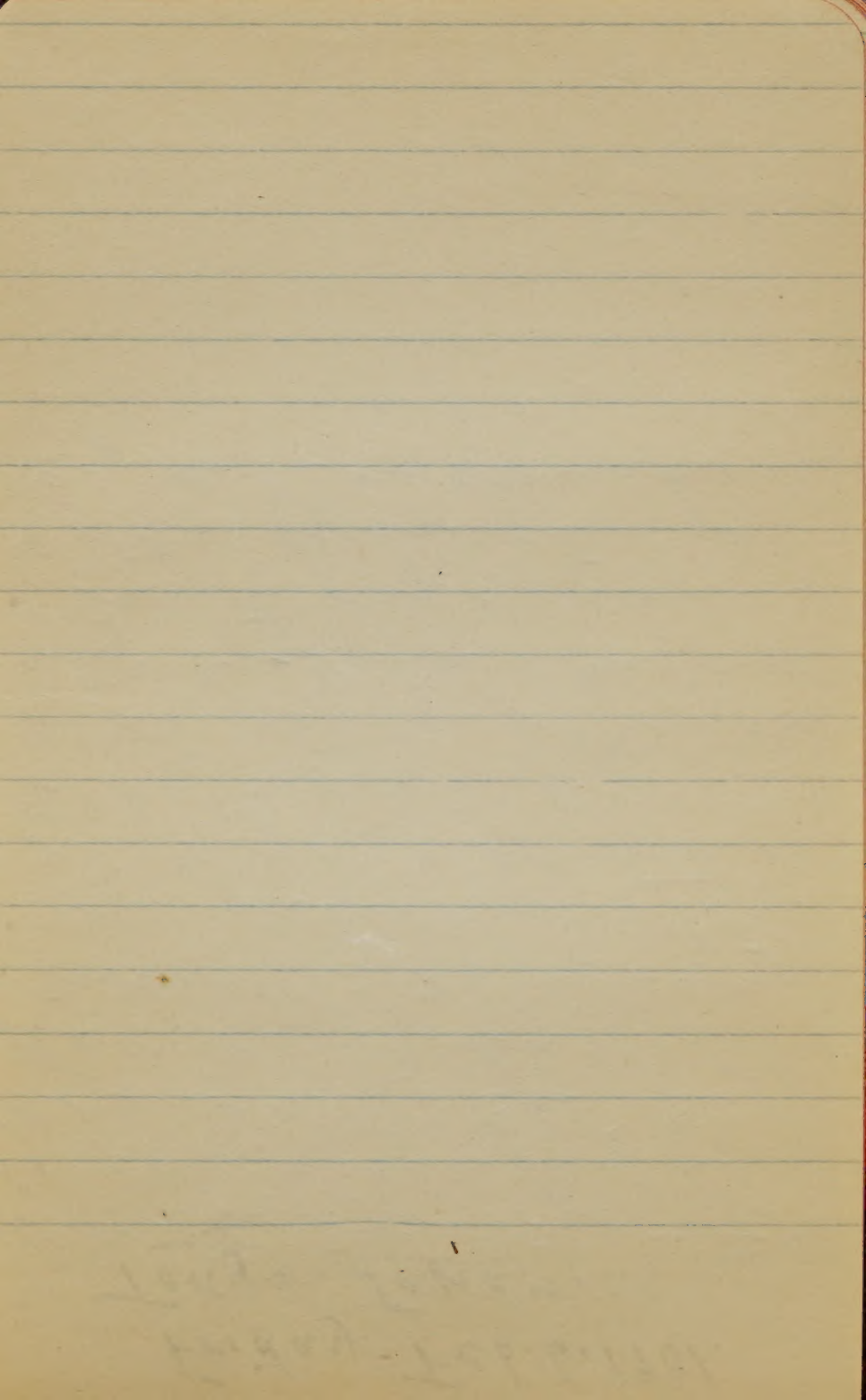


Friday - Feb. 6, 1931,
Tokyo - Japan.

~~Official postage~~ - 26
Cold and snowing in
the morning. Raining
the rest of the day.

Worked on the January
expense account.
Wrote official letters
to Mr. Dawson, Agr.
Commissioner, at Shanghai
and Dr. Butler & Mr. Carlin.

Wrote my soybean
& other agricultural
crop data on Manchuria



Saturday Feb. 7. 1931.

Tokyo - Japan.

Cool and clear.

Poste 20

Postage 36

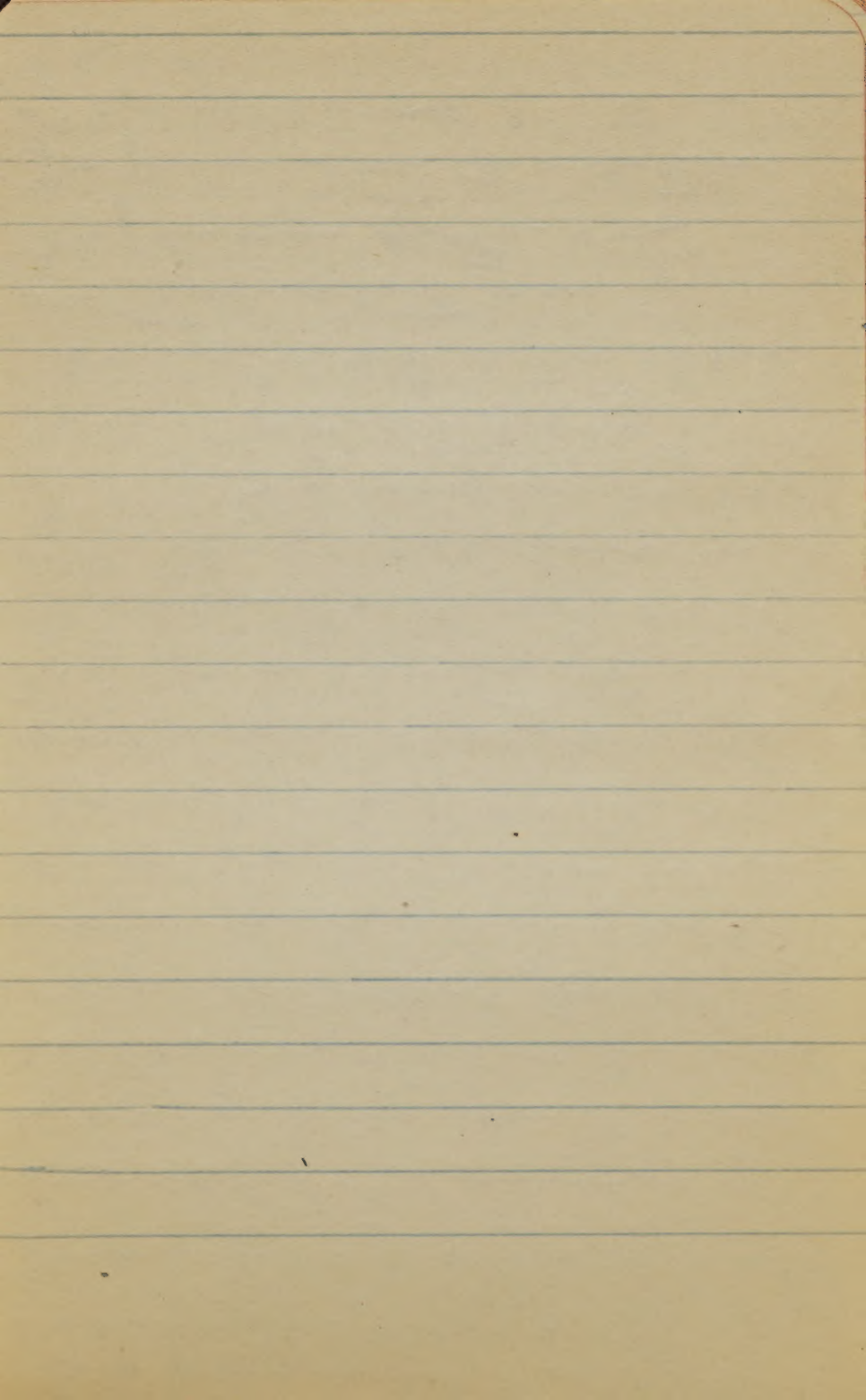
In the morning worked
on Manchurian soybean
data from S.M. Ry.
publications.

Received a box of pure
cultures from Dr.
Keijiro Aso of the Dept.
of bacteriology, Imperial
Coll. of Agr. The box con-
tained 2 tubes each of
5 strains or lab. No.
of *Geoglossum* (*Astragalus*
sinicus ^{bacterium}) and 2 tubes
each of 5 strains of
laboratory numbers of
Boya max.

In the afternoon
went in Shiba district
looking up soy bean
products. There are a
few small stores in
this district dealing
almost entirely in
bean & bean products
and peanuts. The beans
are first soaked over
night until fully
swollen up, and
then are ~~dried~~ roasted
sugared or mixed
with cakes and candies.
We saw no new
products. Soaked beans
of the greenish yellow
variety are sold for
making home computing
on our travels about.

was hung at the sides
or over the doors of
business places. Small
bundles of branches of
a holly-like plant and
soybean stems to which
were attached dried
fish heads or small
dried fish. These were
placed both at front
and rear doors after
the beam scattering
to keep the devils out
after they were driven
out of the rooms by the
beam scattering.

Some work was done
on translations of
myseum data on
Japanese varieties
of myseums.



Sunday, Feb. 8, 1931.
Tokyo Japan.

Cold and clear.

Worked on Jan.

Expense account.

Wrote official correspondence to Dr. Pieter and Mr. Ryerson.

concerning shipping of parcel post packages.

9
Monday - Feb. ~~10~~ 1931.
Tokyo - Japan.

Cloudy and cool.

Kummerowia striata - Schindler
~~*Microlysedya striata* - Makino~~

Dr. Nakai.

Imperial University of Tokyo.
Botanical Garden.

Plant specimens of *Phaseolus*
collected in Manchuria and
Korea and *Glycine ussuriensis*

Dr. Nakai informed that he
was now back at his office
and would be glad to
see us at any time.

We went out at once
in order to try to clear
up some questions
concerning plants.

collected the past season
and one wild species of
sagebrush.

With reference to the
wild sagebrush, Dr. Nakai
knows of only the one
species, never having
heard of *S. gracilis*
and *S. tomentosa*. He
is under the impression
that such species must
be variety forms of
S. ussuriensis.

Wild form of *Medicago*
sativa occurs in many
parts of Chosen, being
especially abundant
in

This wild form has
violet flowers.

With reference to
Gossia pungens. Dr.

Nakai stated that *Zoysia
jungei* is a tender
grass and only occurs
in southern China and
Formosa. The form that
occurs in Chosen and
Manchuria is *Zoysia
japonica*. He is acquainted
with the white flowered
form which he calls
Zoysia japonica, var.
palida. There is also
a bushy form of
Zoysia grown along the
seashore which often
becomes covered with
water. It is known as
Zoysia sinica.

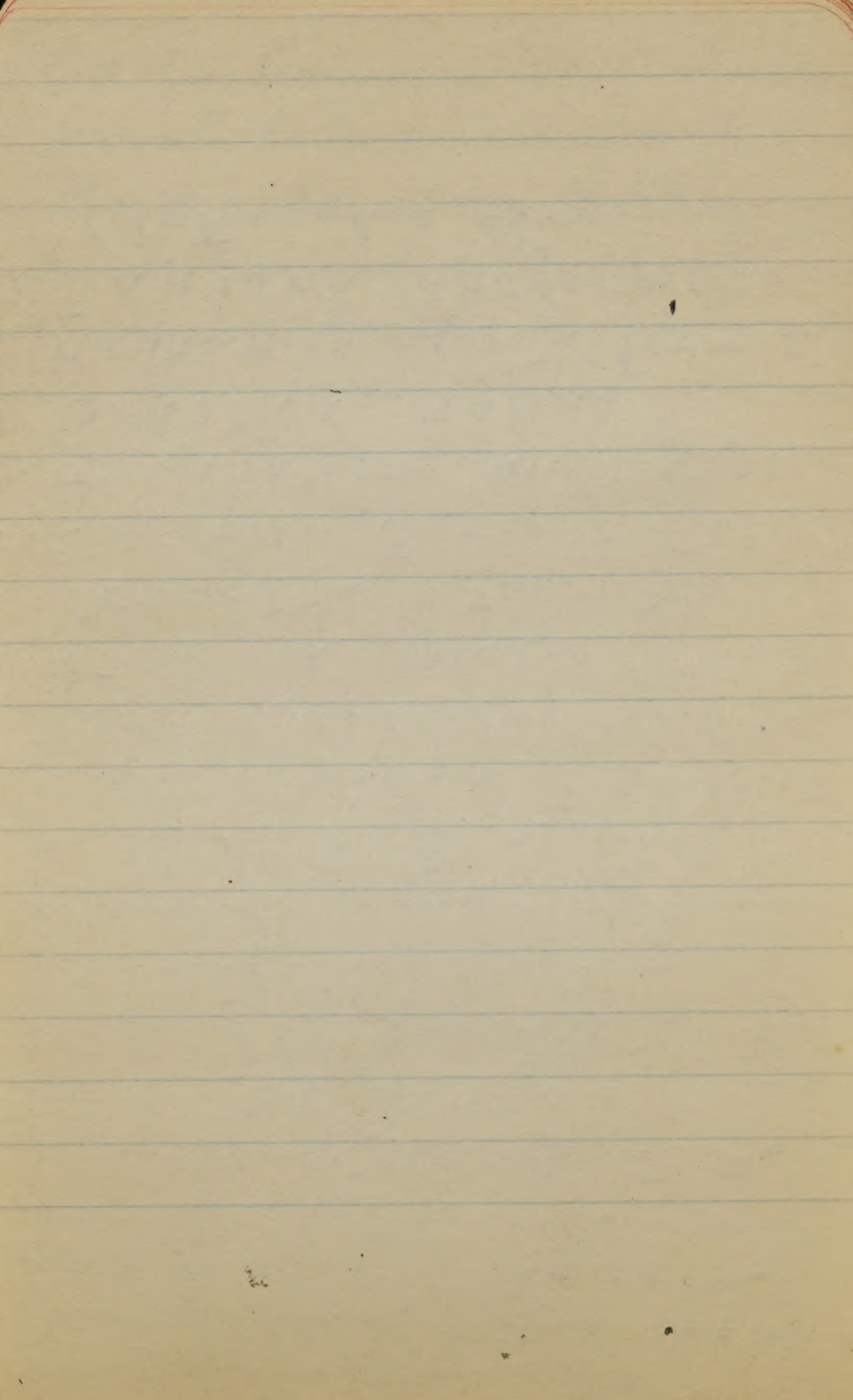
Red and white clover
were introduced into
Korea not much more
than 25 years ago.

at the time of Dr. Nakai's first botanical visit there was very little red or white clover. It was probably introduced by missionaries. When red clover or white clover occurs with *guzisia japonica*, the latter is soon run out as the grass does not stand shade. It is not a grass suited to shady places.

On talking concerning *Astragalus sinensis* Dr. Nakai stated that it is adapted to moist lands and is also suited to acid soils. He stated that more

day of the year, the
young plants are used
as a green. This is on
Jan. 7 when the
Japanese celebrate the
end of New Year. The
greens of New Year (7) wild
plants are used in
a soup which is eaten
on Jan. 7 to bring
good fortune throughout
the new year the plants are:

1. *Stellaria media*
2. *Oenanthe stolonifera*
3. *Capsella Bursa-Pastoris*
4. *Gnaphalium multiceps*
5. *Brassica napus*.
6. *Raphanus acanthiiformis*
7. *Lapsana apogonoides*
(*Astragalus sinicus*),



Tuesday = Feb. 10, 1930.

Tokyo = Japan.

Postage - "74"
Taxi with parcels to consulate "50"

Snowing all day.

Went to the Embassy
to send by diplomatic
parcel - parcels numbered
241, 242, 243 and 244.

Found from Mr. Norris
of the Embassy that it will
take about 25 days for
mail to reach Peking
by the Diplomatic Parcel.

Looked over Sayuan
native varieties and other
sayuan data for
publication in Korea,
Manchuria, and Japan.
One of the heaviest
snow falls in Tokyo

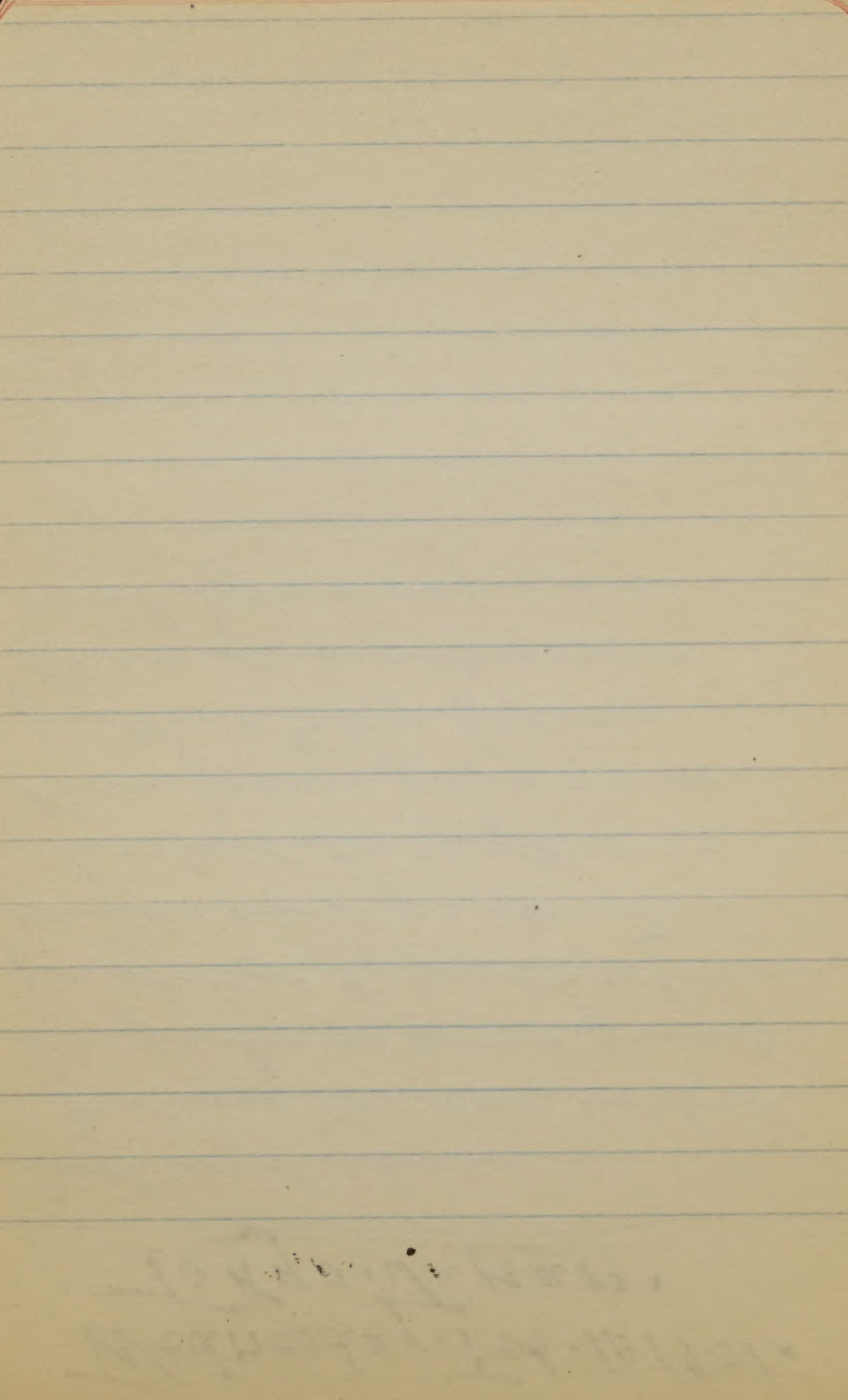
in recent years

Wednesday. Feb. 11/1931.
To Kyo. Japan.

Cool and clear.

During the day worked
on packing some parcel
packages of publications,
seed, and products.

Worked on my brown
data from Japanese
publications from
Korea, Manchuria
and Japan.



Thursday-Feb. 12, 1931.
Tokyo-Japan.

Cool and clear.

Finished packing
for shipment by
Diplomatic Pouch.

Parcel Pkgs. Nos. 245,
246, and 247.

8 sheets wrapping paper.
1 ball twine.

Worked on collecting
data on syphants from
Japanese publications.

$\frac{16}{8}$
1

seen in the Orient,

Saturday. Feb. 14, 1931.
Tokyo. Japan.

Mild and clear

In the morning went
to the Embassy to send
plant record books and
diary rept. - Dec. 1 - Feb. to
Dorrell by diplomatic
pouch to Peking.

Mr. Norris advised that
one of their men who had
just arrived was on his
way to the U.S. Legation
at Peking. In talking
with Mr. Buell who is
on his way to Peking thru
Chosen & Manchuria
advised that he would
be glad to take the package
for Mr. Dorrell. He leaves
Sunday, Feb. 15.

Mr. Koshida, president of
The Yamato Seed Co. kind
Mr. Young of the Foreign Dept.
called at the hotel in the
afternoon, and talked
concerning seed trade in
the U.S. The Yamato Seed
Co. purchases large amts.
of timothy seed, red
clover, and vetch from
the United States. This
seed comes from the
state of Washington and
is largely sold at the
Jinn's Branch in
Sapporo, Hokkaido. The
main office of the company
is in Tokyo and takes
care of the central Japan
seed trade. A branch
store at Osaka (Mr. Hama)
takes care of southern

Mr. Sugatake

576 Ikebukuro
West Sugamo
Tokyo, Japan.

Brother's place

Post of Kudamā-
tsu

Yamaguchi-ken
Japan

Brother's

Sugawara Bull. 13 . = 12 each

Lists of publications ^{4.2} = 12

Cherry Bulletin (Sugatake)

Ornamental Bazaar.

Mr. Hisao, Yoshihiro
1205 Pa. Ave. N.W.
Washington, D.C.,

Japan, Korea and
Manchuria. The branch
at Sapporo, Hokkaido
takes care of northern
Japan and the island
of Hokkaido.
Mr. Sugitake ——— 100 yen.

SOYA BEANS MADE MONOPOLY PRODUCT

MUKDEN, February 12—(Rengo)—
Soya beans, the staple produce of
Manchuria, are now a government
monopoly, which measure has been
adopted by the authorities in con-
junction with the issuing banks for
the relief of farmers who have been
hard hit by the slump in the bean
price.

The Bureau of Soya Bean Mono-
poly has been established in Mukden
with branches in Heilungkiang and
Kirin Provinces. The new institu-
tion will purchase 60,000 carloads of
soya beans in three batches, which
will be exported direct to foreign
markets in order to prevent foreign
intermediaries from gaining undue
profits. Fears are entertained, how-
ever, in commercial circles that the
issuing banks of Manchuria may re-
peat their blunder of a few years ago
when they cornered grains and caus-
ed inflation.

Sunday - Feb. 15, 1931
Tokyo - Japan.

Mild and clear.

In the morning worked
on my train notes
and did some packing
of official notes &
papers. To Embassy - 1.50

Went to some of the
department stores to
see if there were any
new products of my train
for the Doll's Festival.
We found them about
the same as last year.

At night we went
with Mr. Sanyake
for a farewell dinner
in the Shingyoku
section. We were
served a dish of

of small pieces of
dried fish and various
vegetables were
which had been
poured a miso gravy.
Red miso was mixed
with sugar and
a light vinegar.

~~Tuesday~~
~~Monday~~ Feb. 17/1931
Tokyo - Japan.

Wind & clear.

For Mr. Sugitake - obtain
rules for patenting
Agricultural varieties.

Postage +.86 ✓

Payee & checks .48 ✓

Taxi to consulate .50 ✓

Taxi - Tokyo Sta from Hotel 1.00 ✓

Baggage 10 trunks 10.00 ✓

10 cases 10.00 ✓

Car fare - Tokyo to Yokohama .98 ✓

Taxi Sta. to boat pier 1.00 ✓

Porter fee - Boat pier ✓

In the morning went
to Ocean Line office
and obtained tickets
and then to bank
to close account. The
bank gave $49\frac{3}{8}$ per

year. At the Imperial
Hotel, the cashier
gave 50¢ per year,
wrote up some
official correspondence
and packed last
things.

Went to Consulate
to see about mail,
Found a letter from
Chirwa, Chosen
advising they were
sending some native
varieties of soy beans.

Left Tokyo. 8th.
Tokyo. 12.30 P.M.
Arr. Sakuragicho. 8th
Yokohama. 1.15 P.M.
Mr. Sugitake, Mar.
Akayama, Koko
Mr. Sugitake went

with us to the
boat pier; Mr.
Kawasaki came to
Yokohama to see
us off.

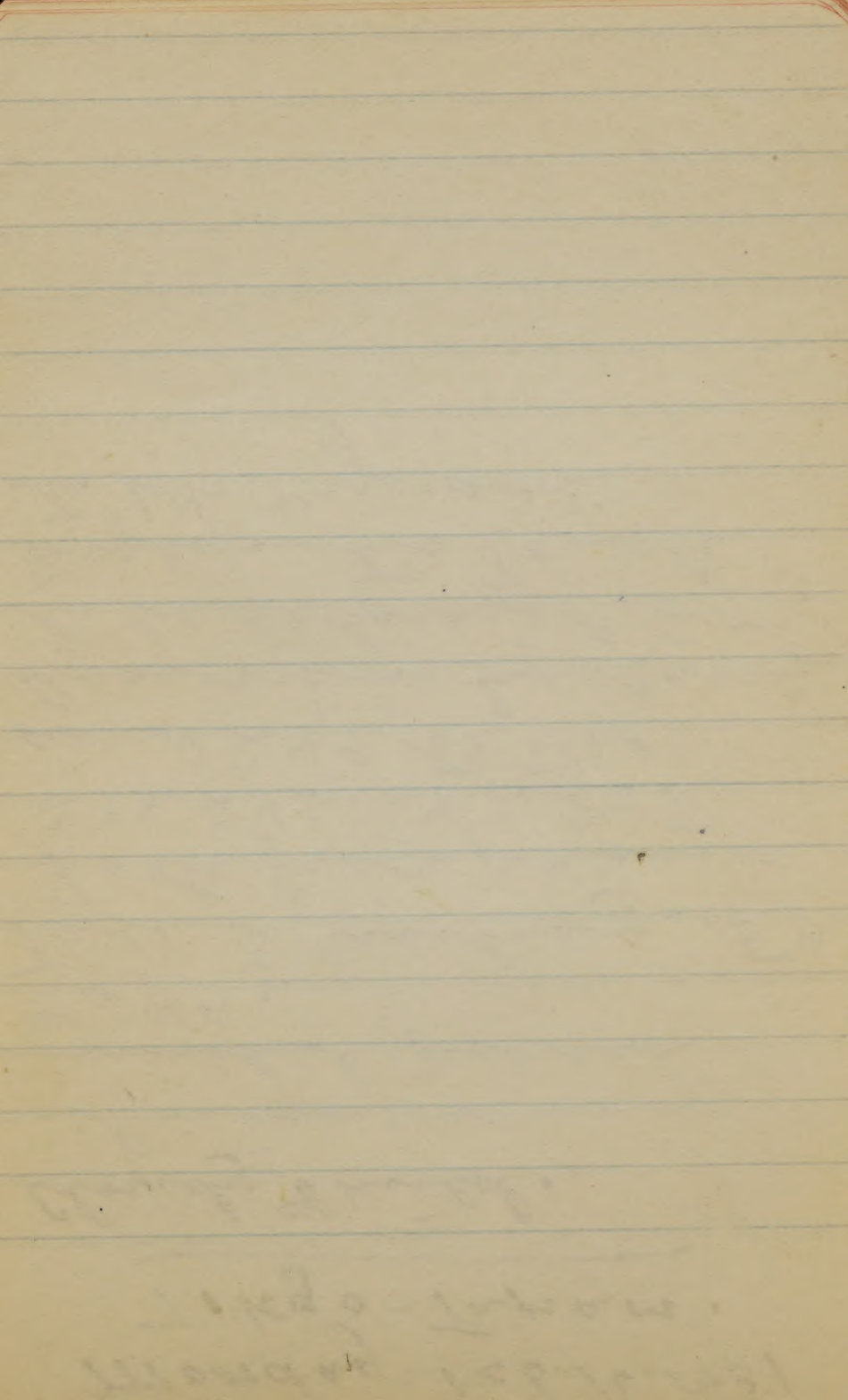
The President Mr
Kinley left Yokohama at 3 P.M.

Monday - Feb. 16, 1931
Tokyo - Tappan.

Cloudy & mild.

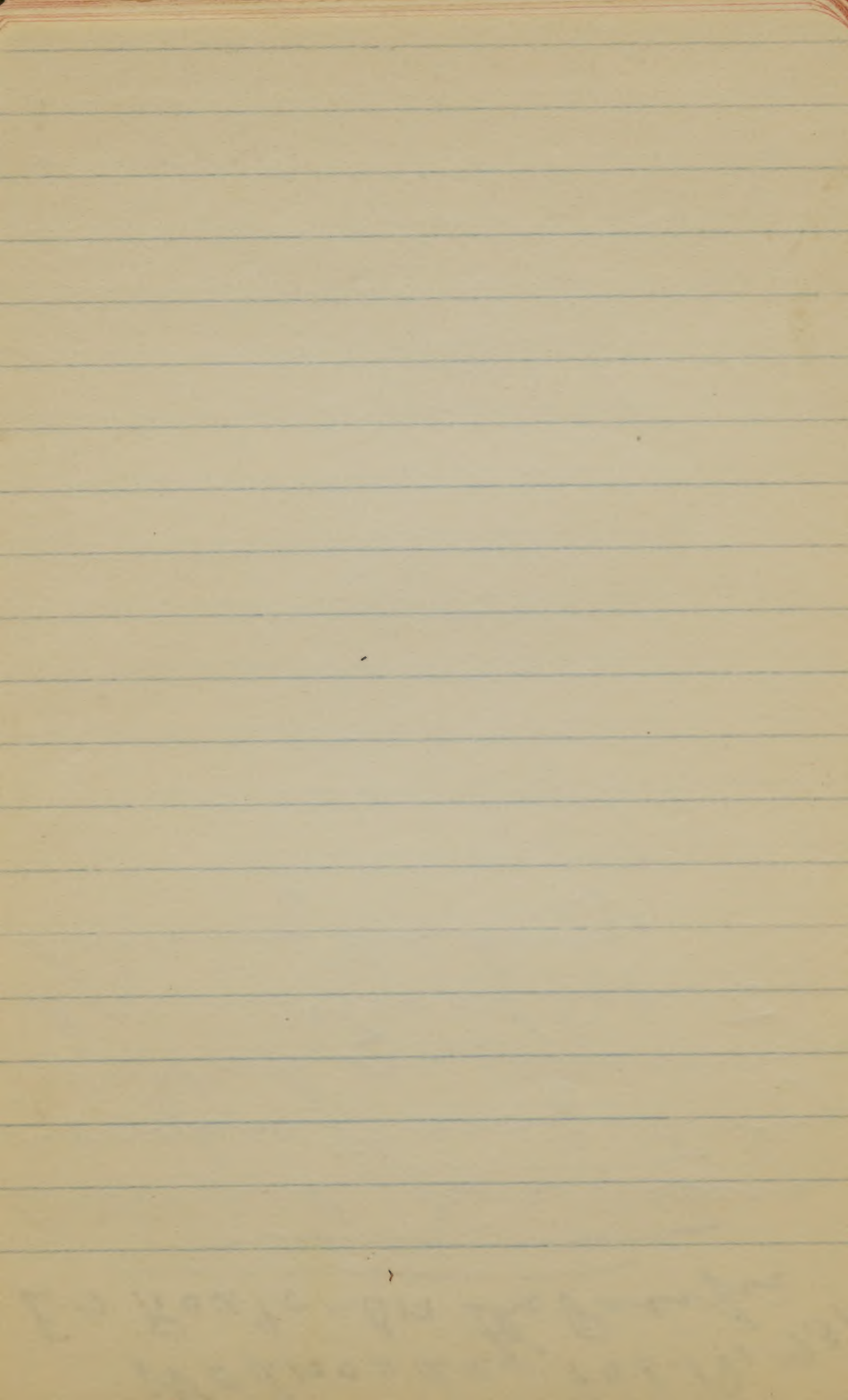
In the morning
finished parcel
249.

Taxi to Embassy, 50
Took five parcels
245, 246, 247, 248
and 249 to the
American Embassy
to be delivered by
Diplomatic pouch
to Mr. Ryerson



Wednesday, Feb. 18, 1931
En Route - On the Pacific

Cool and clear, seems
rougher than yesterday.
Worked on Manchurian
Agricultural Reports
during the day.



Thursday Feb. 19. 1931.

En Route - On the Pacific

Mild and clear. The
Ocean rather smooth.
Work on Manchurian
suybean data and
Japanese soybean data.

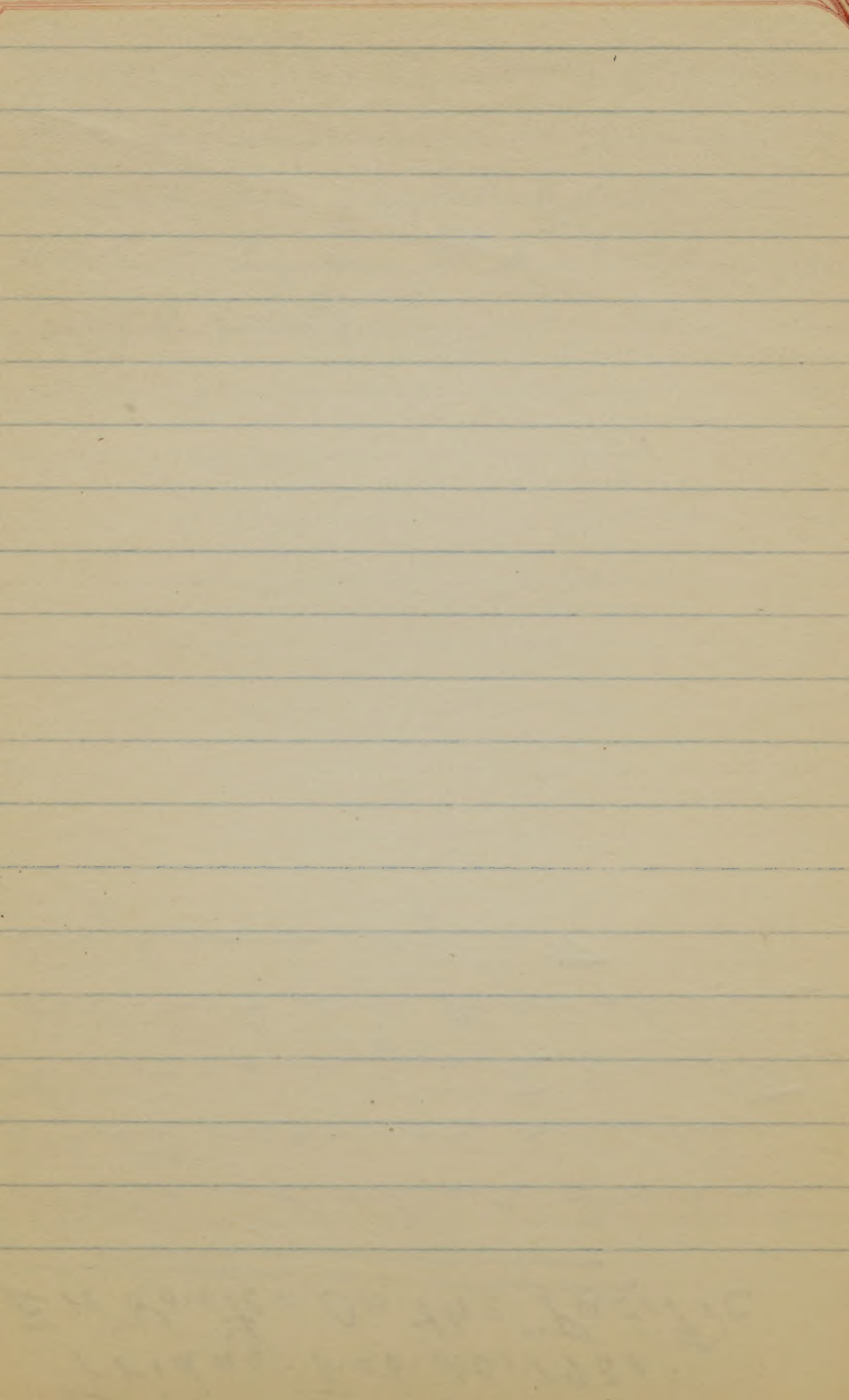
Met a Missionary
from Korea who is
retiring after 41 years
service in that country.
Rev. F. S. Miller.

In talking with Mr.
Miller concerning the
crops he advised that
millet was the chief
food crop of the Koreans.
Generally some beans,
chiefly adzuki, were
boiled with the millet.
He advised that large

quantities of soy bean
oil cake meal were
used as fertilizers
but only in the rice
seed beds.

Friday = Feb. 20, 1931.
En Route = On the Pacific

Clouds clear. Some-
what warmer and
the ocean quite smooth.
Worked in Manchuria
Suyfuan report.



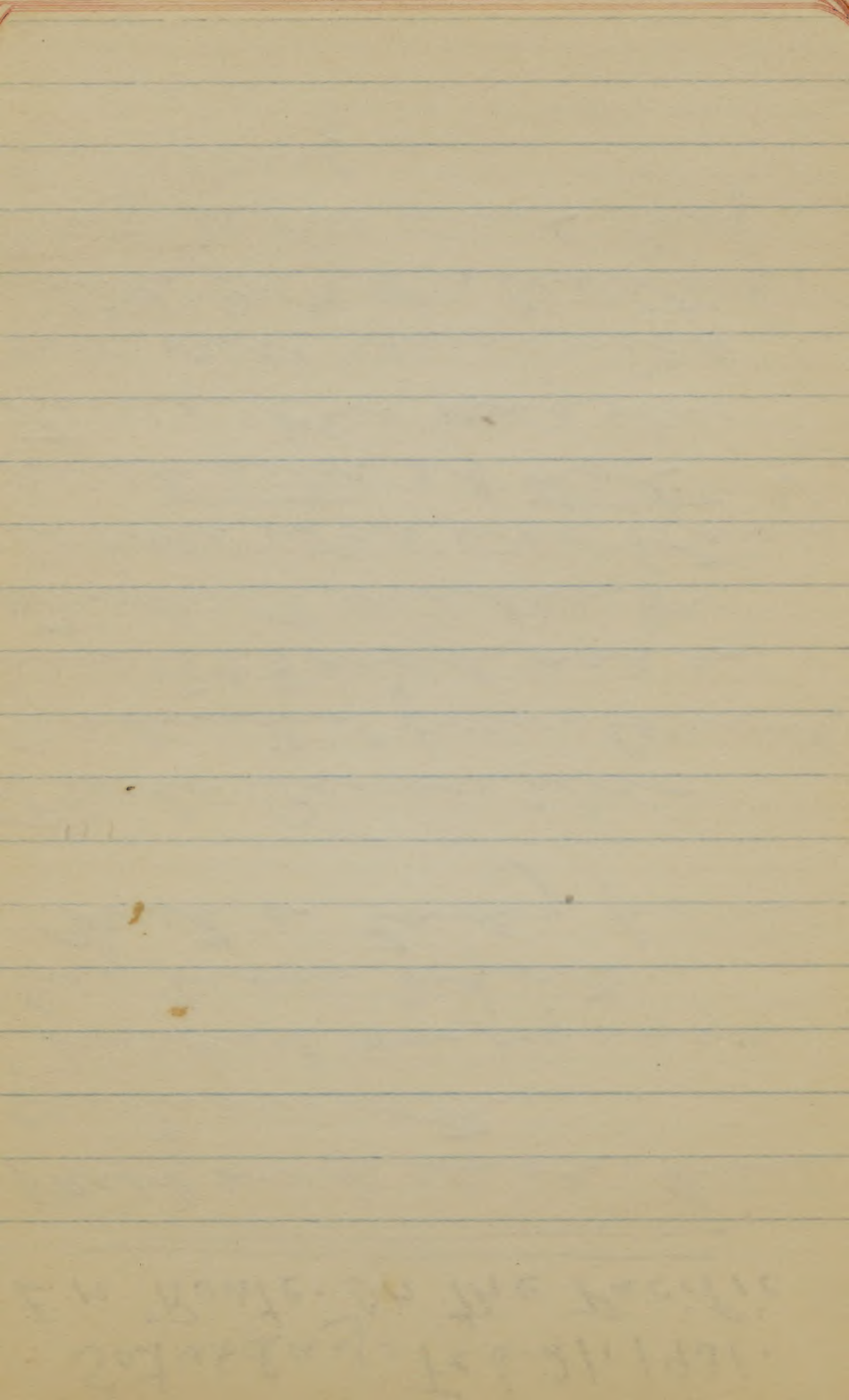
Saturday = Feb. 21, 1931.
En Route: On The Pacific

Mild and clear. Ocean
quite smooth.

Worked on Japanese
Suy-han Report.

Met a lady from

Phila. Penn. who
graduated from Cornell
in 1895 and was a
student under Dr.
Coville who was botany
instructor at that
time. She ~~was~~ also
very well acquainted
with Dr. & Mrs. Constock,
Prof. Bowler and Prof.
H. H. Wing.



Sunday - Feb. 22, 1931.
En Route - On The Pacific.

Korea - The Hermit Nation
By Griffiths.

Korea and Her Neighbors
Isabella Bird (Bishop)

The Vanguard
J. S. Gale.

First Fruits in Chosen
C. A. Clark.

History of Mission Work in Korea.
George Paik.

Mild and clear.

Worked on Japanese
system duties.

Had a long talk with
Mr. Miller concerning
Korea.

Monday = Feb. 23, 1931.

First - Day:

En Route = On The Pacific

Warm and clear.

Worked on very many
variety data of Japan.
Also talked with
Mr. Miller concerning
agricultural conditions
in Korea.

Mr. Miller spoke of the
"jaundice" disease which
causes food to become
acid and causes
sores in the mouth and
about the lips & face.
This disease is very
fatal to Japanese, less
so to Koreans and
other foreigners. A diet

of fresh milk is
generally beneficial.

Monday = Feb. 23, 1931
2nd Day.

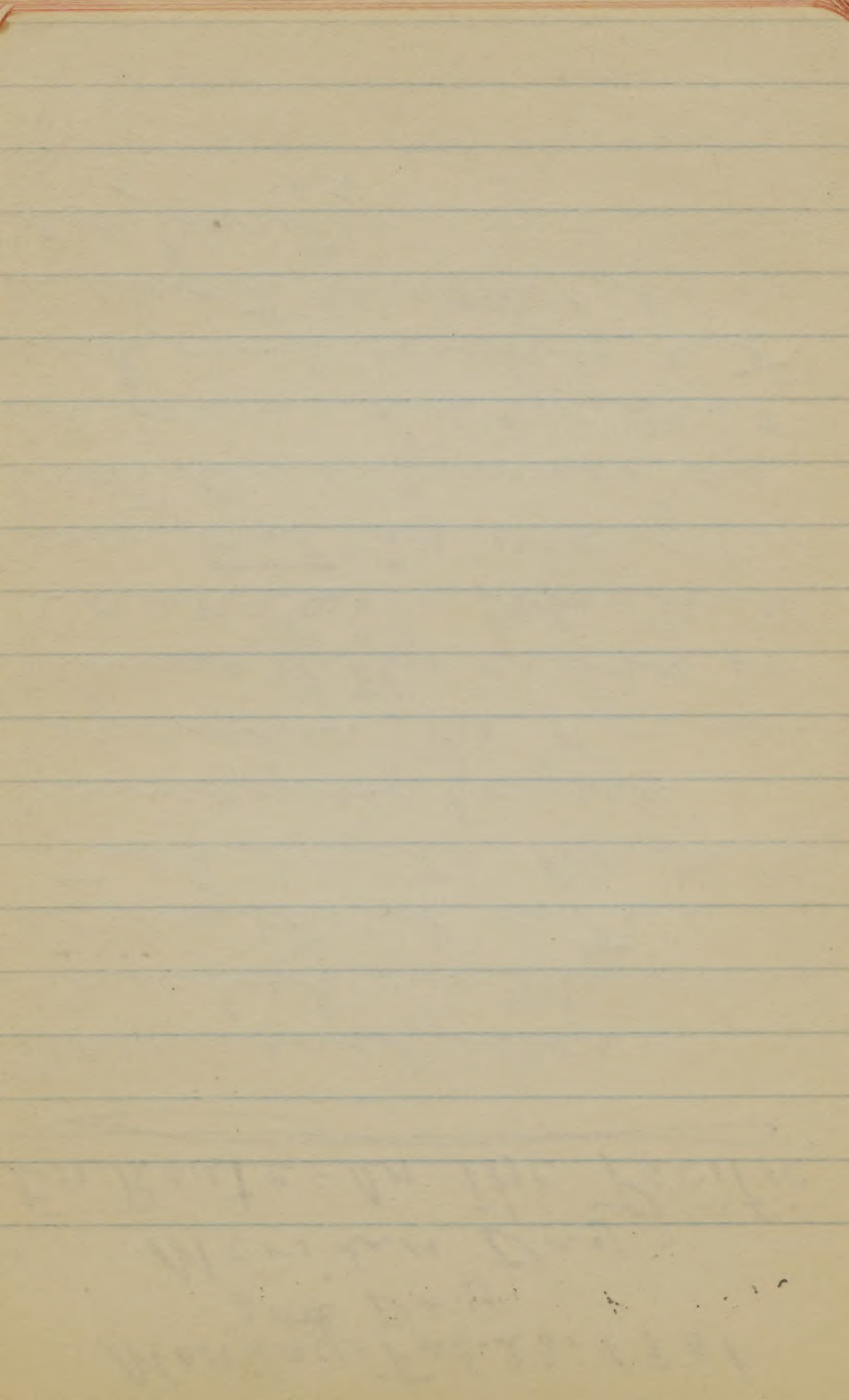
Meridian Day =

En Route = On the Pacific

Warm and clear.

Worked on Manchurian
agricultural data.

Talked with Mr. Miller
concerning *Lysia*
japonica. The Korean
name of the grass is
"Chandai". Mr. Miller
says that is one of the
best lawn grasses as
it forms an excellent
sod and makes out
a short growth. It is
very hardy.



Tuesday = Feb. 24, 1931.
En Route - On the Pacific

Warm and clear,
Throughout the day
worked on sunbeam
data in Japan.
Saw some post card
pictures of Korea
belonging to Mr.
Miller.

The Koreans eat a
very considerable
amount of millet.
Mr. Miller advised
that when the millet
is hulled, and made
into a porridge it makes
an excellent food. The
Koreans mix adzuki
beans in boiling the
porridge.

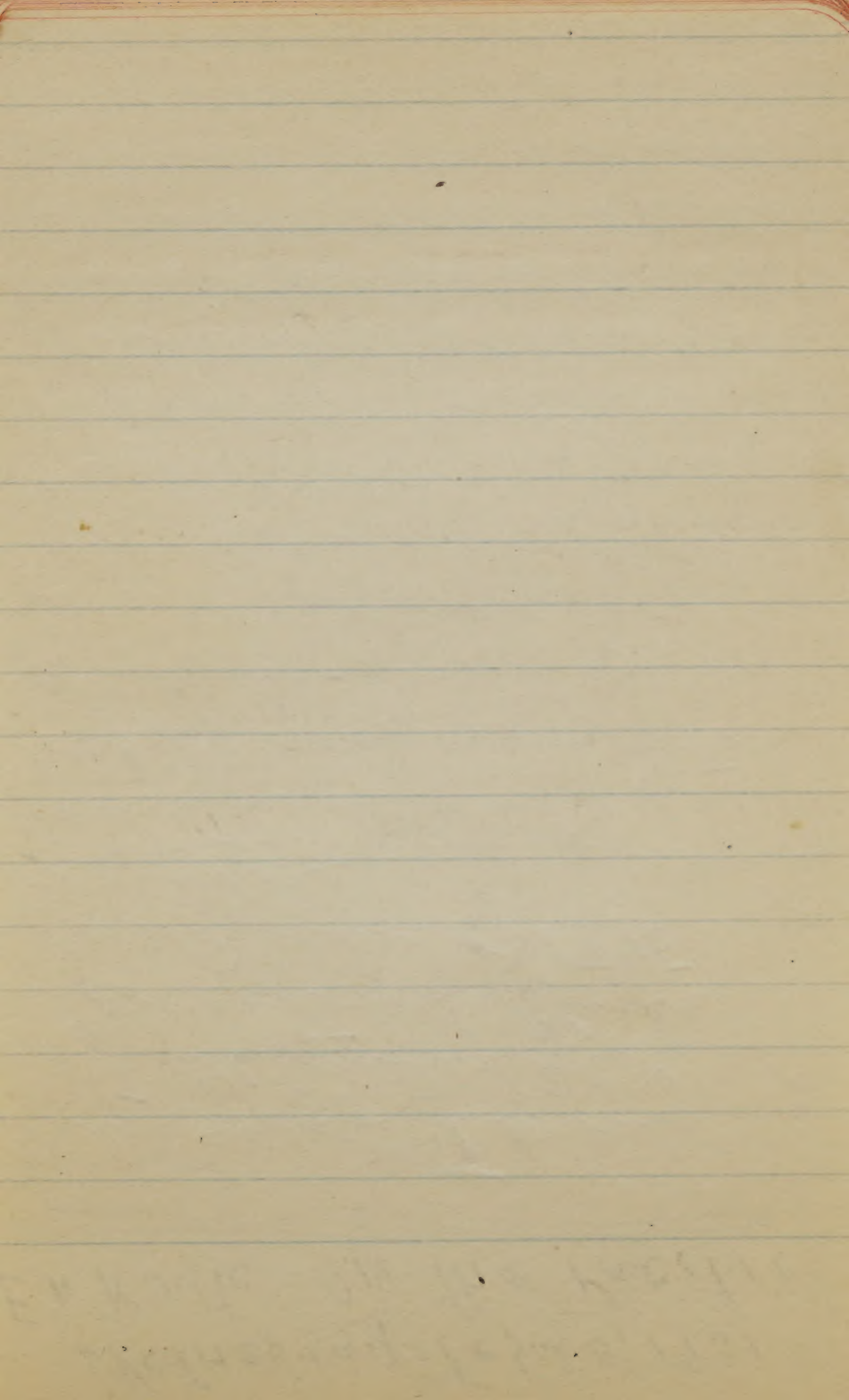
Wednesday = Feb. 25, 1931
En Route - On The Pacific

Miss Agnes L Tierney
118 W Coulter St
Germantown, Phila.

Cornell Class of 1895
Dr. Coville.

Warm and clear.

Worked on day steam data
for Japan.



Honolulu = Hawaii

Thursday - Feb. 26. 1931
En Route - On The Pacific.

Warm and clear.

Arrived at Honolulu
about 7 A.M.

Showers throughout the
day. First went by taxi out
to the pineapple plantations
and sugar plantations.
We then went to the
Hawaiian Exp. Sta. where
we found J. M. Westgate.
He took us to the College
of Hawaii where he teaches
a class in Tropical
Agriculture. We visited
some of the experimental
fields. The station is
doing a very considerable
amount of breeding

work with the Pigeon
pea and has about 300
numbers which the se-
cured from various parts
of the world. Westgate de-
sires some early varieties
for the mountain region.
They are trying out a large
number of legumes such
as mung bean, Crotonaria,
Cowpeas, etc.

Left Honolulu at 6 P.M.
about 31 people got aboard
from Honolulu for Hawaii.
A Mr. Lord of Maui was
seated at our table.

Friday - Feb. 27, 1931.
On The Pacific-Eu Route

Mild and clear.

During the morning
worked some on survey
& other agricultural data
of Manchuria & Korea.

Had a talk with Mr.
Miller, Korean missionary.
He advised that dogs are
very commonly eaten
throughout Korea by the
lower classes. They are
common in all market
places, the meat being
red due to the fact that
the dogs are strangled
to death and not bled.

At the table Mr. Lord
advised that he was very
much interested in

flowers and has sent many orchids from the Philippines to Hawaii Botanic Gardens. He is very much interested in securing different varieties of *Amaryllis* for the Philippines. He is connected with a sugar company in the Philippines.

Mr. Lord advised that soybeans are used much in the Philippines as a food and also as a green manure crop. The sugar company had their employees use soybeans as a food with other foods to prevent beri-beri. The soybeans

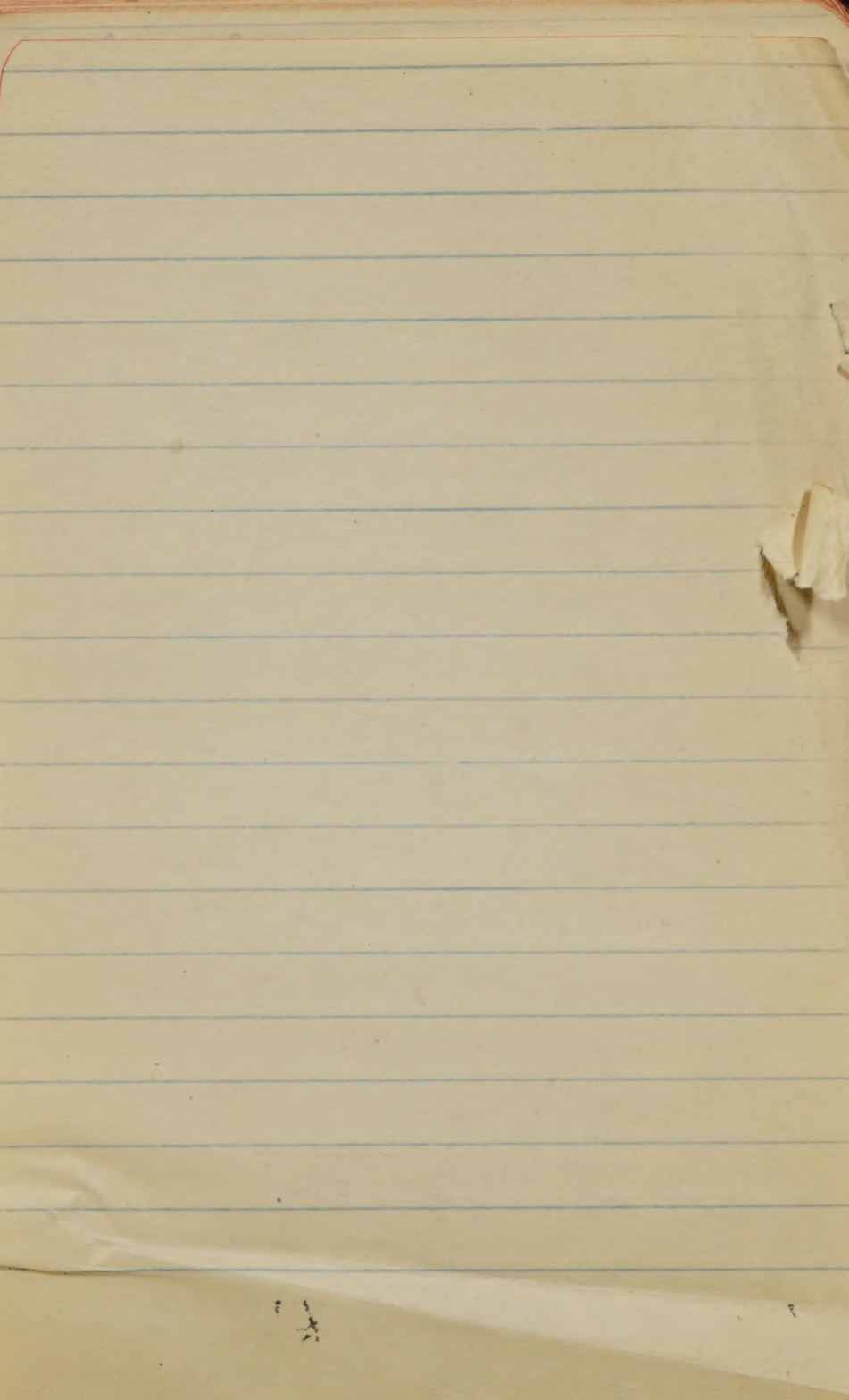
are cooked and mixed
with ground meat
cooked.

In a talk with Mr.
Miller he advised that
Chandai (*Zoysia Japonica*)
meaning fine or small
grass or sod is used
as a binding grass on
embankments that are
sandy. It is especially
adapted to sandy
loam soils.

He also told the use
of baby-dogs in bringing
up babies. When the
baby has a movement
the dog is called which
~~comes~~ eats the excreta
as well as ticks or cleans
off the baby. The dog is
kept thus until the

child is weaned at
which time the dog is
killed and eaten by the
family. In killing the
dog is driven from the
yard and when a rope
loop has been fixed
at a hole in the fence
which the dogs used
for getting in and out
of the yard, the woman
calls the dog. As the
dog sticks his head
through the hole the
loop is drawn up and
around the dog's neck
and it is swung
around through the
air until strangled
to death. The dog is
also knocked or

The head after being
swung in the air, &
The hair is then turned
off and the dog made
into soup.



Saturday - Feb. 28, 1931.
En Route - On The Pacific

Mild and clear.

Worked on soybean data.
Mr. Lord lent me a book
concerning plants in
Hawaii.

"In Honolulu Gardens
By Marie C. Neal

Published by Mission
Honolulu, Hawaii, 1929

Cajon indicum

Pigeon Pea, Congo Pea, Porto
Rican Pea. Not until about
1908 was it grown extensively
as feed for horses, cows, and
poultry. The green crop is
used for pasturage and
the hay and seeds are
ground up for meal.
The plants also serve

as windbreaks to protect
the young of other plants.
In northern India the
nutritious seeds are an
important food supply
and are eaten green or
ripe, in India being
made also into a sauce
called "dal" which is
eaten with curry. The
pigeon pea grows up to
an elevation of 6000 feet
in the Himalayas and
in Hawaii it prospers
in dry land under
conditions not favorable
for similar crops. It
is fortunate in suffering
little from insect pests.
In the Orient it furnishes
food for silk worms.

and in Central Africa
the stems when struck
or rubbed with reeds
are said to produce fire
The suitable soil in Egypt
4000 lbs. of peas are
raised to an acre.

Mucuna wrens.

Sea bean, cow-itch plant.

The Kachas at Waikiki,
and other parts of Oahu,
nearly spherical seeds
about an inch in diameter
can be found. They are
brown or marked with
black lines and a band
extends around more
than $\frac{3}{4}$ of their circumference.
The name "cow-itch plant"
is apparently derived
from the stinging hairs
on pods and young shoots.

Mucuna gigantea.

a sea bean known as
Kae-e found on the beaches
differs from the cow-itch
plant in having rather
flat seeds, smooth pods
and green flowers.

Zoysia tenuifolia

Japanese grass, Khet
grass, Mascarene grass.

Paspalum conjugatum

Hilo grass

Cynodon dactylon

Manienie Kaele



N. Akiyama,
No. 151 Kagomachi
Koishijawa
Tokyo. Japan

Dear
Friend

Chandai Kawanuma for
Japanese Japanese

